

IN THE CLAIMS

Please amend the claims as follows.

Claims 1-50 (Cancelled)

51. (New) A method for taking up a medium to be analysed, the method comprising:

providing a pipette for taking up the medium to be analysed, the pipette having a diaphragm containing at least one pore of a given radius;

determining a critical pressure at which the surface tension of a liquid present at the at least one pore of said diaphragm would be overcome;

providing a pump that produces a negative pressure in the pipette to take up the medium to be analysed;

providing a pump controller that controls the pump so that the negative pressure does not go below the critical pressure; and

using the pump controller to control the pump to take up the medium to be analysed.

52. (New) The method of claim 51, wherein determining a critical pressure comprises using the pump controller to determine the critical pressure.

53. (New) The method of claim 52, wherein determining a critical pressure comprises determining the critical pressure using:

$$P = 2 \cdot S / r$$

where S denotes the surface tension of the liquid present at the at least one pore, and r denotes the given radius of the at least one pore.

54. (New) The method of claim 51, further comprising providing the medium to be analysed.

55. (New) The method of claim 54, wherein providing the medium to be analysed comprises providing the liquid.

56. (New) The method of claim 54, wherein providing the medium to be analysed comprises providing a gas.

57. (New) The method of claim 51, wherein providing a pipette comprises providing a pipette having a diaphragm that is hydrophilic.

58. (New) The method of claim 51, wherein providing a pipette comprises providing a pipette having a diaphragm that is hydrophobic.

59. (New) A method for taking up a first medium to be analysed, the method comprising:

providing a pipette for taking up the first medium, the pipette having a diaphragm containing at least one pore of a given radius;

providing a pump that is capable of producing a negative pressure in the pipette;

providing a pump controller that controls the pressure produced by the pump;

providing the first medium and a second medium in a container, such that a boundary between the first medium and the second medium comprises a surface having a surface tension;

determining a critical pressure at which the surface tension would be overcome;

dipping the pipette into the first medium; and

using the pump controller to control the negative pressure produced by the pump such that the negative pressure does not go below the critical pressure, so that the first medium is fully taken up and taking up of the second medium is prevented.

60. (New) The method of claim 59 wherein determining a critical pressure comprises using the pump controller to determine the critical pressure.

61. (New) The method of claim 59, wherein determining a critical pressure comprises determining the critical pressure using:

$$P = 2 \cdot S / r$$

where S denotes the surface tension, and r denotes the given radius of the at least one pore.

62. (New) The method of claim 59, wherein the first medium comprises a liquid and the second medium comprises a gas.

63. (New) The method of claim 59, wherein the first medium comprises a gas and the second medium comprises a liquid.

64. (New) The method of claim 59, wherein providing a pipette comprises providing a pipette having a diaphragm that is hydrophilic.

65. (New) The method of claim 59, wherein providing a pipette comprises providing a pipette having a diaphragm that is hydrophobic.